



Health Services
LOS ANGELES COUNTY

March 26, 2013

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To ensure access to high-quality, patient-centered, cost-effective health care to Los Angeles County residents through direct services at DHS facilities and through collaboration with community and university partners.



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TO: Each Supervisor

FROM: Mitchell H. Katz, M. D. *Mitchell Katz*
Director

SUBJECT: **ENTERPRISE PATIENT DATA REPOSITORY PROJECT**

There are significant changes resulting from both the new payment methodology under the current 1115 Waiver and the provisions of the Affordable Care Act (ACA) that will impact the Department of Health Services (DHS or Department). In order to function in this changed environment, DHS must be able to effectively manage patient care, maximize revenue, and enhance its ability to provide quicker and more accurate financial forecasts. To achieve these goals, DHS requires a high level of comprehensive and integrated patient data including financial, utilization, and clinical information. Currently, the Department's data systems cannot provide the necessary level of data.

Under the Waiver, two major revenue sources are the Safety Net Care Pool and Disproportionate Share Hospital funds, for a combined potential annual value of approximately \$465 million. The implementation of an Enterprise Patient Data Repository (EPDR) will provide the detailed data necessary to allow the Department to claim and maximize these available Waiver revenues. Since the final Waiver cost report for Fiscal Year (FY) 2010-11 (first year of the current Waiver) is expected to be due to the State in January 2014, it is critical that the EPDR system is implemented as soon as possible.

The purpose of the new EPDR is to create an integrated data warehouse for financial, utilization and clinical data; optimized for cost reporting and data analytics. The system will facilitate operational decision making, performance measurement and analysis, and efficient and accurate reporting to internal and external entities. The integration of financial, utilization and clinical data into one data system will provide DHS the ability to analyze and evaluate financial and other departmental operations, understand and improve utilization of services and resources, and make operational, system and patient health care delivery improvements. These data capabilities are vital to maximizing Waiver funding and will also enable the Department to function optimally within the new ACA and managed care environment.

The project will be comprised of two phases and accomplished with specialized software and contracted professional services. Phase One will produce a functional data base that will allow the Department to submit cost reports that will maximize revenue under the current Waiver. The functions to be provided with contracted professional services will include the necessary data profiling and loading of all data required for the Waiver cost reports in addition to data quality remediation activities and development and assistance with the

establishment of a data governance structure and process for DHS. Phase Two builds on Phase One and will include clinical data, such as laboratory test results, pharmaceuticals dispensed, Community Partner visit claims, clinic scheduling information, and productivity metrics.

CURRENT STATE

The new payment methodology under the Waiver and the data needs resulting from the ACA cannot be met with DHS' current data systems. DHS is unable to provide information supporting three critical functions: 1) revenue maximization; 2) monitoring patient experience and quality of care; and 3) optimizing resource use under a managed care capitation payment system. To achieve these objectives, disparate data from multiple source systems must be accurately and efficiently integrated into a single enterprise data warehouse.

Under the prior Waiver, DHS' reporting system, both manual and automated, allowed revenue to be maximized; however, under the new Waiver, the payment methodology has changed and DHS' current data systems cannot provide the detailed data necessary to maximize Waiver revenue. Under the new methodology, increased managed care payments from Healthy Way LA, Seniors and Persons with Disabilities, and other Medi-Cal managed care patients play a critical role in the reimbursement calculation. DHS' current system of collecting data involves retrieving data stored in three unconnected data silos, resulting in significant inefficiencies. The current DHS Enterprise Data Repository contains clinical and utilization data from our hospital information systems and the DHS Managed Care Services data warehouse contains health plan eligibility information and out-of-network utilization data. The financial data repository contains financial data from Medi-Cal paid claims. Additionally, data across DHS facilities and from external source systems are not standardized. The Department's current data capabilities are insufficient to meet our data needs and to support our ability to maximize Waiver revenues.

Consulting services from Sierra Systems, Inc. were procured using an Information Technology (IT) Support Services Master Agreement fixed price deliverable work order to perform an analysis of the future Waiver cost reporting requirements and provide recommendations for how best to replace the current financial data repository. Sierra's assessment concluded that the Waiver cost report should be based on a single enterprise-wide data warehouse platform with an identity management tool and Business Intelligence reporting software. A single data warehouse will enable DHS in Phase One of this project to produce a Waiver cost report that will maximize revenue, and in Phase Two will leverage the platform for numerous other data needs including monitoring patient experience and optimizing resource use under capitation.

EPDR PROCUREMENT PROCESS

The implementation of the EPDR will require software, hardware, and services. In order to align with DHS and County IT strategic plans and maximize investments, the procurement process sought to leverage existing resources where necessary. Based on Sierra's analysis, the Department determined that Oracle Corporation's commercial off-the-shelf healthcare data model ("Oracle Healthcare Data Warehouse Foundation") was among the highest-rated on the market. In addition to optimally meeting DHS's analytic and reporting needs, purchase of the Oracle software data model would enable the Department to leverage existing Oracle licenses and Oracle-based

hardware. The Business Intelligence reporting tool will use existing County IBM/Cognos licenses. IBM's identity management software will be purchased under the County's existing software agreement with IBM. This software will enable patient data from multiple sources to be linked together, which is essential for an EPDR. The IBM software is the highest rated identity management software on the market, is installed in a large number of healthcare systems, and is better suited to our business needs.

Implementation of the healthcare data model also requires professional services to deploy the EPDR. In order to ensure the EPDR is implemented in time to produce the FY 2010-11 final Waiver cost report in January 2014, DHS discussed possible procurement strategies with the County Chief Information Office (CCIO) and the Chief Executive Office. The three departments, with the concurrence of County Counsel, determined that the most expeditious approach is to obtain the necessary software and services through the CCIO's existing Master Services Agreements (MSA).

Although the MSAs are not set up for a competitive procurement process, the three departments determined that it would be appropriate to obtain proposals from both potential vendors. Oracle and IBM were asked to submit fixed price deliverable proposals based on a set of DHS requirements for Waiver cost reporting (Phase One) and additional operational and clinical data requirements (Phase Two) related to the ACA. Both firms were provided the same information and opportunities to ask questions and meet with DHS to develop their proposals. In addition, specific instructions were issued to facilitate standardized responses. A team of DHS IT and other subject matter experts using uniform criteria reviewed the proposals and pricing. Both Oracle and IBM were asked for a best and final price for Phase One. The DHS Director of Contracts and Grants provided guidance and oversight during the entire procurement process to ensure that a fair and impartial process was conducted. At the end of this process, Oracle was the top ranked, lowest cost proposer.

Therefore, DHS proposes procuring the Oracle Healthcare Data Warehouse Foundation data model through the County's Oracle Software Agreement. In addition, DHS' existing IT database is from Oracle and DHS can leverage existing Oracle licenses for a discount on the new data warehouse software.

Based on the Oracle fixed price deliverable proposal, the firm will be responsible for implementation of a DHS data governance structure, data profiling and process remediation, implementation of the IBM identity management software, programming required to map source data into the healthcare data model, and producing reports and analytical capabilities. As allowed under the MSA, subcontractors will be used for identified deliverables under the Statement of Services. The cost for Phase One is approximately \$10,904,500 for services and \$6,026,223 for software licenses (including three years of maintenance), for a Phase One total of \$16,930,723. Phase Two is estimated at \$6.8 million. Payment will be based on completion of each deliverable. Funding in the amount of \$4,388,686 for the software licenses and first deliverable is included in DHS' FY 2012-13 budget. Funding for the remaining deliverables (FY 2013-14 is \$11,620,222 and FY 2014-15 is \$7,721,815) will be identified within the Department's existing resources in future fiscal years.

NEXT STEPS

In accordance with the CCIO's MSA guidelines, Board approval is required for projects that exceed \$300,000. DHS is currently working with Oracle to finalize the Statement of Services for the MSA work order and anticipates presenting a recommendation to the Board at the April 16, 2013 Board Meeting requesting approval of a work order for Phase One of the EPDR project. We will also be requesting delegated authority to enter into a second fixed-price work order for Phase Two, not to exceed \$6.8 million.

If you have any questions, please let me know or your staff can contact Dr. Anish Mahajan, Director of System Planning, at (213)240-8416.

MHK:kh

c: Chief Executive Office
Chief Information Office
County Counsel